

AMENDMENTS TO THE CLAIMS

Claims 1 - 10. (Cancelled)

11. (Currently Amended) An apparatus for processing meat which comprises a ~~rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, the apparatus comprising:~~

a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, each comprising a vessel for receiving bodies of meat in contact with a treating liquid and for agitating said bodies of meat to distribute said treating liquid in said bodies of meat;

means for selectively heating and cooling said vessel during the agitation of said bodies of meat therein;

a jacket for said vessel, said means for selectively heating and cooling said vessel comprising a refrigeration unit for cooling a liquid and circulating the cooled liquid through said jacket and a heater for heating a liquid and passing the heated liquid through said jacket selectively; and

a temperature sensor positioned for direct contact with bodies of meat in said vessel and operatively connected to said means for selectively heating and cooling said vessel for controlling a temperature of said vessel during the agitation of said bodies of meat therein, said temperature sensor being provided with a member capable of being thrust into said vessel to pierce a body of meat therein, said member having a plurality of sensing regions along a length thereof for providing an average temperature of the body of meat pierced thereby.

Claims 12-16. (Cancelled)

17. (Currently Amended) An apparatus for processing meat which comprises a ~~rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, the apparatus comprising:~~

a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, each comprising a vessel for receiving bodies of meat in contact with a treating liquid and for agitating said bodies of meat to distribute said treating liquid in said bodies of meat; and means for selectively heating and cooling said vessel during the agitation of said bodies of meat therein, said vessel being a massager having a massaging drum formed with a temperature control jacket and a rotary paddle in said drum, said means for selectively heating and cooling said vessel including means for selectively circulating a heated and a cooled liquid through said jacket, said apparatus further comprising programming means for raising a temperature of said bodies of meat in said massaging drum to a predetermined elevated temperature while massaging said bodies of meat with a controlled torque of said rotary paddle.

18. (Original) The apparatus defined in claim 17, further comprising a temperature sensor positioned for direct contact with bodies of meat in said massaging drum and operatively connected to said means for selectively circulating said heated and cooled liquid through said jacket for controlling a temperature of said massaging drum during the agitation of said bodies of meat therein.

19. (Original) The apparatus defined in claim 18 wherein said temperature sensor extends through a wall of said massaging drum and is thermally insulated therefrom to respond directly to a surface temperature of bodies of meat in said massaging drum.

20. (Original) The apparatus defined in claim 18 wherein said temperature sensor is provided with a member capable of being thrust into an interior of said massaging drum to pierce a body of meat therein.

21. (Currently Amended) An apparatus comprising ~~a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, the apparatus comprising:~~

a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, each comprising a vessel for receiving and agitating bodies of meat in contact with a treating liquid to distribute the treating liquid in the bodies of meat;

means for selectively heating and cooling the vessel while agitating the bodies of meat therein; and

a jacket, on the vessel, for circulating a liquid therethrough for selectively heating and cooling the vessel while agitating the bodies of meat.

22. (Previously Presented) The apparatus according to claim 21, further comprising a temperature sensor positioned for direct contact with bodies of meat in the vessel and operatively connected to the means for selectively heating and cooling said vessel for controlling a temperature of the vessel while agitating the bodies of meat therein.

23. (Previously Presented) The apparatus according to claim 22, wherein the temperature sensor extends through a wall of the vessel and is thermally insulated therefrom to respond directly to a surface temperature of bodies of meat in the vessel.

24. (Previously Presented) The apparatus according to claim 22, wherein the temperature sensor is provided with a member capable of being thrust into the vessel to pierce a body of meat therein.

25. (Previously Presented) The apparatus according to claim 24, wherein the member has a plurality of sensing regions along a length thereof for providing an average temperature of the body of meat pierced thereby.

26. (Previously Presented) The apparatus according to claim 21, wherein the vessel is a massager having a massaging drum formed with a temperature control jacket and a rotary paddle in the drum, and the means for selectively heating and cooling the vessel includes means for selectively circulating a heated and a cooled liquid through the jacket.

27 (Previously Presented) The apparatus according to claim 26, further comprising programming means for raising a temperature of the bodies of meat in the massaging drum to a predetermined elevated temperature while massaging said bodies of meat with a controlled torque of the rotary paddle.

28. (Previously Presented) The apparatus according to claim 27, further comprising a temperature sensor positioned for direct contact with bodies of meat in the massaging drum and operatively connected to the means for selectively circulating the heated and cooled liquid

through the jacket for controlling a temperature of the massaging drum while massaging the bodies of meat therein.

29. (Currently Amended) An apparatus comprising ~~a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, the apparatus comprising:~~
a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, each comprising a vessel for receiving and agitating bodies of meat in contact with a treating liquid to distribute the treating liquid in the bodies of meat;
means for maintaining the bodies of meat during agitation at a predetermined elevated temperature sufficient to effect rapid, thorough and uniform distribution of the liquid within the meat, and to substantially reduce formation of a protein/water film, by selectively heating and cooling the vessel while agitating the bodies of meat therein; and
a jacket on the vessel for circulating a temperature controlling fluid.

30. (Previously Presented) The apparatus according to claim 29, wherein the means for selectively heating and cooling the vessel comprising a refrigeration unit for cooling a liquid and circulating the cooled liquid through the jacket and a heater for heating a liquid and passing the heated liquid through the jacket selectively.

31. (Previously Presented) The apparatus according to claim 30, further comprising a temperature sensor positioned for direct contact with bodies of meat in the vessel and operatively connected to the means for controlling a temperature of the vessel while agitating the bodies of meat therein.

32. (Previously Presented) The apparatus according to claim 31, wherein the vessel is a massager having a massaging drum formed with a temperature control jacket and a rotary paddle in the drum, the apparatus further comprising programming means for raising a temperature of the bodies of meat in the massaging drum to the predetermined elevated temperature while massaging the bodies of meat with a controlled torque of the rotary paddle.

33. (Currently Amended) An apparatus comprising ~~a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, the apparatus comprising:~~
a rotating paddle stationary vessel massager or rotating vessel tumbler containing impact vanes, each comprising a vessel for receiving and agitating bodies of meat in contact with a treating liquid to distribute the treating liquid in the bodies of meat;
means for maintaining the bodies of meat during agitation at substantially 45°F to 60°F by selectively heating and cooling the vessel while agitating the bodies of meat therein; and
a jacket on the vessel for circulating a temperature controlling fluid.

34. (Previously Presented) The apparatus according to claim 33, wherein the means for selectively heating and cooling the vessel comprising a refrigeration unit for cooling a liquid and circulating the cooled liquid through the jacket and a heater for heating a liquid and passing the heated liquid through the jacket selectively.

35. (Previously Presented) The apparatus according to claim 34, further comprising a temperature sensor positioned for direct contact with bodies of meat in the vessel and operatively

connected to the means for controlling a temperature of the vessel while agitating the bodies of meat therein.

36. (Previously Presented) The apparatus according to claim 35, wherein the vessel is a massager having a massaging drum formed with a temperature control jacket and a rotary paddle in the drum, the apparatus further comprising programming means for raising a temperature of the bodies of meat in the massaging drum to the predetermined elevated temperature while massaging the bodies of meat with a controlled torque of the rotary paddle.

37. (Previously Presented) The apparatus according to claim 11, comprising a rotating paddle stationary vessel massager.

38. (Previously Presented) The apparatus according to claim 17, comprising a rotating paddle stationary vessel massager.

39. (Previously Presented) The apparatus according to claim 21, comprising a rotating paddle stationary vessel massager.

40. (Previously Presented) The apparatus according to claim 29, comprising a rotating paddle stationary vessel massager.

41. (Previously Presented) The apparatus according to claim 33, comprising a rotating paddle stationary vessel massager.